

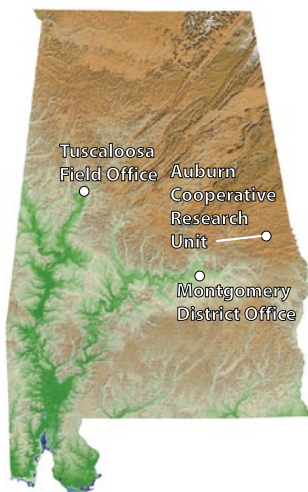
# The U.S. Geological Survey in Alabama

## Mission of the U.S. Geological Survey

The U.S. Geological Survey provides the Nation with reliable, impartial information to describe and understand the Earth. This information is used to:

- Minimize loss of life and property from natural disasters
- Manage water, biological, energy, and mineral resources
- Enhance and protect the quality of life
- Contribute to wise economic and physical development

## USGS Facilities in Alabama



Hydrologist collecting a water-quality sample in an urban stream near Birmingham

## USGS Programs in Alabama

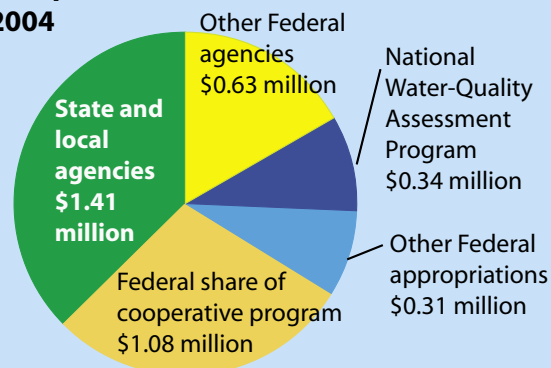
### Water Resources

The U.S. Geological Survey has collected hydrologic information in Alabama since 1894 beginning with our earliest streamgaging efforts on the Tennessee River at Florence. This information consists of streamflow and gage-height data; reservoir content; water-quality and quantity data; suspended-sediment data; and ground-water levels. Hydrologic investigative projects are conducted on statewide, regional and local levels. The USGS in Alabama has cooperative programs with the Alabama Department of Environmental Management, the Alabama Department of Transportation, the U.S. Army Corps of Engineers, local municipalities and many others.

Current water-resources activities of the U.S. Geological Survey in Alabama include:

- Real-time hydrologic monitoring of more than 179 stations for flood forecasting and drought tracking
- Bridge-site hydraulic studies that use the latest scientific methods for computation of flood frequency and hydraulic modeling
- Age dating of ground water and geochemical modeling to assist the Water Works and Sewer Board of the City of Anniston in protecting the City of Anniston's drinking-water supply
- Collection of water-quality data and modelling of water quality for the Mobile Area Water and Sewer System to estimate

### Sources and amounts of funds for the U.S. Geological Survey, Water Resources Discipline, Alabama District, for Fiscal Year 2004



potential impacts to J.B. Converse Lake, the primary drinking-water supply for the Mobile area

- Environmental monitoring and assessment of Fivemile Creek at Tarrant to provide needed information for city planners to make the stream, park, and greenway more accessible to the public
- Assessment of ground-water quality in the Weeks Bay watershed in Baldwin County that will provide insight into the role of ground water discharge and its influence on the health of the ecosystem in Weeks Bay
- Water-quality assessments of the Mobile and the Tennessee River Basins



Drilling and installing ground-water monitoring wells in Montgomery

## Geospatial

- Memorandum of understanding with Geological Survey of Alabama (GSA) for developing data for *The National Map*
- City of Birmingham and the USGS collaborated on combining high-resolution imagery acquired by USGS/National Geospatial Agency (NGA) for critical urban areas and Lidar data collected by Birmingham in completing revised orthoimagery over Birmingham that was of value to Department of Homeland Security.

## Minerals

- Coal bed methane (CBM) provides about 6 percent of the gas consumed in the United States. Research on CBM includes geologic, chemical and economic aspects of CBM to aid industry in developing this natural gas resource. Collection of basic drilling and production data is a part of this effort.
- The USGS is working with Federal, State, and local agencies in the development of a comprehensive plan for acid mine drainage prevention and restoration. The goal is to ensure that the restored watersheds will provide economic benefit and will support the pre-mining biologically diverse characteristics.

## Biology

- The USGS is working with industry in tracking the abundance of sensitive species of plants and animals in southern Alabama and the Gulf Coastal Plain so timber harvests can be more compatible with species protection.

## Coastal Issues

- Beach erosion is a chronic problem along most open-ocean shores of the United States. To meet the need for accurate information regarding past and present shoreline changes, the USGS is conducting an analysis of changes to develop standardized methods for mapping and evaluating shoreline movement.



Fish sampling in Cahaba Valley Creek near Pelham

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**Visit the USGS in Alabama  
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